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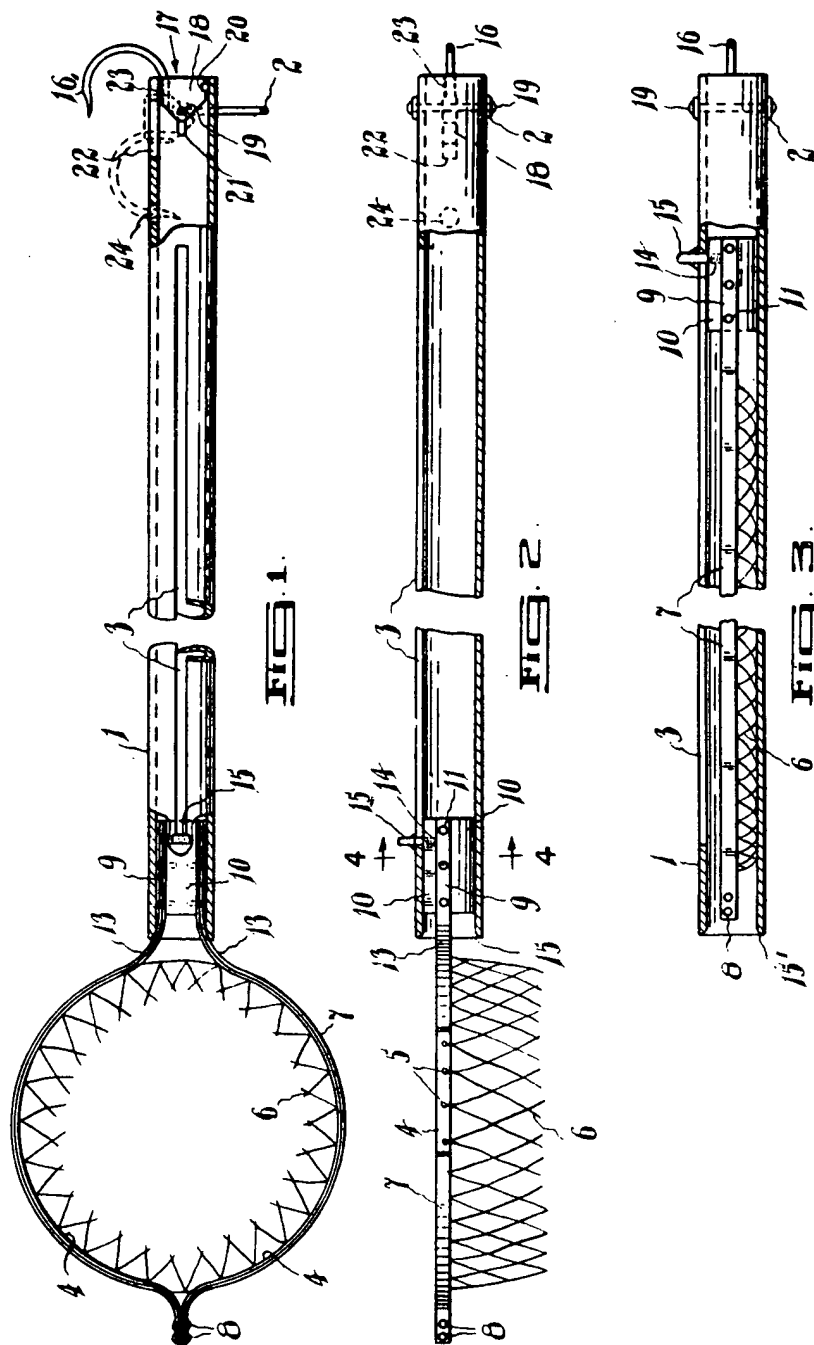
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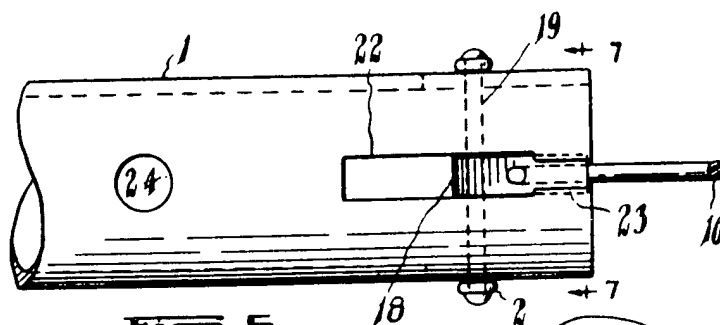


FIG. 5.

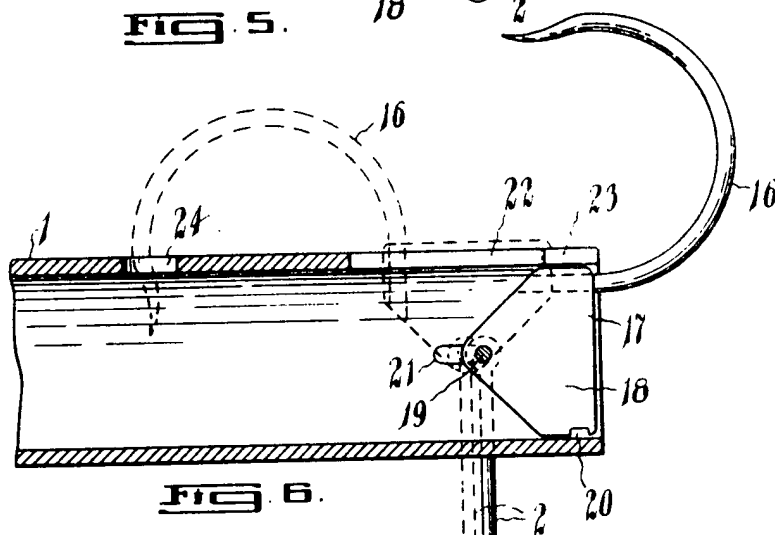


FIG. 6.

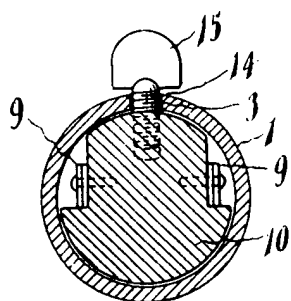


FIG. 4.

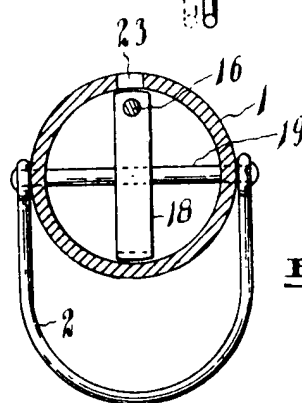


FIG. 7.

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PATENT No. 468,880

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Collapsible Fish Landing Nets and Gaff Hooks

Garfield L. Mann, Seattle, Washington, U.S.A.

Application March 28, 1947, Serial No. 556,646

4 Claims

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My invention relates to improvements in landing nets of the collapsible and telescopic type such as are employed by anglers, and it also appertains to gaffs as used by anglers.

In landing nets of this kind the net member is commonly secured directly to a single pair of bows adapted to be collapsed and telescoped within a tubular handle. The net member by reason of the resiliency of the bows is subjected to frictional contact with the mouth portion of the tube as it is slid back and forth therein between operable and inoperable positions. Such frictional contact is particularly aggravated at the regions where the net member is fastened to the bows in consequence of which the net becomes abraded and has a tendency to break loose from its support. This makes it difficult to nest it within the tube.

It is an object of this invention to obviate this disadvantage and in furtherance of this object I provide a landing net having a holding tube and a pair of collapsible inner bows to which the net is fastened and a pair of outer bows which are fastened to said inner bows for collapsing therewith. These outer bows serve to protect the net in its movement within the tube by keeping it out of tensional contact therewith. Additionally, the outer bows facilitate the movements of the net member by affording elements which slidably engage the tube more readily than if they carried the usual projecting portions of the net member.

Another object of the present invention is to provide in a device of this character a simple and effective means for positively securing the net member in open and closed positions.

Still another object of the invention is to provide a holding tube with a collapsible net supported from one end thereof for telescoping therein and a gaff hook supported from the other end whereby a selective use of the net or the hook may be had according to the size of the fish to be landed.

In practice of fishing it is generally uncertain what size of fish may be hooked with the ordinary pole and fish line. It is necessary to land relatively large fish with a hand net and still larger fish with a gaff hook and it is highly desirable and important that the net and hook be combined in a single appliance for immediate use as game fish frequently work loose from a hook if allowed to lag before landing. My invention provides a highly serviceable combination appliance for landing a fish which

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lessens the weight that may otherwise have to be carried by a fisherman.

A further feature of the invention is that it provides a gaff hook which is foldable to an unextended position wherein the point of the hook is embedded in the holding tube where it can do no harm when the device is being transported. It also provides a structure by which the gaff hook can be readily extended to a proper position for use by a simple mechanical movement.

With these and other objects in view the invention consists in the novel construction and arrangement of parts as described in the ensuing specification and shown in the accompanying drawing forming a part thereof.

In the drawing:

Figure 1 is a plan view of the holding tube showing the net in unfolded position at one end thereof and the gaff hook in extended position at the other end thereof ready for use;

Figure 2 is a side elevation of Figure 1 showing the holding tube sectionized and partly broken away;

Figure 3 is a side elevation partly in section of the holding tube showing the landing net collapsed and telescoped within the tube;

Figure 4 is a cross section taken on line 4—4 of Figure 2;

Figure 5 is an enlarged detail in plan view of the hook end of the tube;

Figure 6 is a longitudinal section of Figure 5; and

Figure 7 is a cross section taken on line 7—7 of Figure 5.

In the drawing the reference numeral 1 denotes the holding tube which is an open-ended member having at one end a clevis 2 which is used for suspending the device and also for carrying it. Said tube is provided with a longitudinal slot 3 which extends adjacent to each end thereof. This slot is of uniform width. The net member comprises a pair of inner bows each designated by the numeral 4, which bows are preferably made of thin spring steel and are provided with apertures, as at 5, at intervals throughout their bow sections by which the net proper, 6, is attached. Said inner bows are fastened at their ends to a pair of outer bows, each denoted at 7. The connection of the outer ends of the bows may be effected as by rivets 8. The two pairs of bows are coextensive and it will

be clearly understood that the net is solely secured to the inner bows as by the apertures 5 referred to. Other means of course could be employed to secure the net to the inner bows and the invention is not restricted in this respect. The inner ends 9 of said pairs of bows are rigidly secured to a block 10 as by means of screws 11 or like fastening elements. In order to facilitate the entrance of the bows into the tube they are supplied with reversely curved portions 13.

Said block is a slide fit in the tube for the telescoping of the bows and the net therein. A thumbscrew 14 is threadedly engaged in said block with its shank portion extending through the slot 3 with the head 15 disposed exteriorly. The thumbscrew is adapted, upon being tightened, to clamp the block to the tube in any position in which it is set. The mouth end of the tube is preferably supplied with a bevelled edge 15' to facilitate the telescoping of the bows within the tube.

It will be apparent that when the net member is in open position, as shown in Figures 1 and 2, the thumbscrew may be tightened against the tube while the portions 13 of the outer bows are in pressing engagement with the mouth of the tube as represented in Figure 1. In this way the block is securely held in place and the net is in extended position ready for use. When it is desired to bring the net in to closed position, as shown in Figure 3, the thumbscrew is slackened off to free the block, which block is moved inwardly of the tube to the inner end of the slot 3. The thumbscrew serves as a handle for the block and enables the necessary pressure to be applied for collapsing the bows and telescoping them along with the net into the tube and also for securing them in folded condition within the tube, the thumbscrew being tightened up against the tube for this purpose. Obviously to open the net it is only necessary to slacken the thumbscrew and force the bows outwardly to extended position. It will be appreciated that by the construction above recounted the net juncture with the inner bows is fully protected by the outer bows against abrasion in the movements of the net member inwardly and outwardly of the tube. The bevelled edge 15' of the tube mouth facilitates such movements. An advantageous feature of the construction is that the ends of the tube are open which permits drainage of water and circulation of air when the net member is in closed position which is beneficial in preventing deterioration of the netting and protecting other parts from the injurious action of water or dampness incidental to the use of the device. The advantages and utility of the net structure will be manifest from the preceding description. The invention provides a landing net characterized by the simplicity of parts and the positive manner in which they are adapted to operate.

Having described the collapsible and telescopic net structure the improved feature of the gaff hook will be related which gaff hook provides for landing a fish which is too large for the use of the net. The gaff hook is disposed on the end of the tube opposite the net and is adapted to be normally folded down with its point inside the tube for protection when carrying the same and is also suited to be instantly elevated into position and projected outwardly from the tube for the gaffing of a fish as occasion may demand. The hook is

a curved member 16 which rigidly projects from the outer end 17 of a plate 18. The plate is mounted for swinging movement on the pivot 19 of the clevis 2 aforesaid. The plate extends transversely within the tube and is of a width slightly less than the bore thereof such that it may be freely slid in axial direction. The hook is arranged at one of the side edges of the plate and at the opposite edge there is provided a notch 20 suited to engage the side wall of the tube as will hereinafter be explained.

The pivot 19 of the clevis is mounted in slots 21 provided in opposite side wall portions of the tube which enable it to be moved along with the clevis lengthwise of the tube. At one side of the pivot 19 a slot 22 is formed in the wall of the tube receptive to the plate 18 when this plate is swung on the pivot 19. The slot 22 is supplied at its outer end with a continuation slot 23 of a slightly reduced width which serves to block the plate 18 against pivotal movement when the pivot 19 is at the outer end of the slot 21, as shown in Figures 5 and 6. In this position the hook is rigidly held in extended position for use. When it is desired to move the hook to a closed normal position the plate 18 is moved together with the hook inwardly so as to bring the pivot 19 to the inner end of the slot 21 which permits the plate to swing on the pivot to a right-angular position, as indicated in dash lines in Figure 6. In this positional movement the hook is swung inwardly so as to bring its point into a hole 24 supplied in the tube. The plate is then shifted outwardly so as to engage the notch 20 with the wall of the slot in order to retain the hook in closed position. When in closed position the point of the hook is embedded in the tube and can do no harm. To open the hook it is only necessary to disengage the notch 20 and to swing the plate inwardly so that the hook will pass through the continuation 23 of the slot to a fully extended position in which it is locked by outward movement of the plate.

It will be manifest that this construction provides a sturdy hook structure by which the hook member can be swung between alternately closed and open positions by a simple and reliable mechanical movement.

Having described the invention in its selected form it will be manifest that such variations and modifications may be resorted to as come within the spirit and scope of the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A gaff hook structure comprising a tube having an apertured end, a plate diametrically disposed in said tube and guided therein to slide between outer and inner positions, a pivot and slot connection constraining said plate to slide between said inner and outer positions and permitting it to turn, a hook carried by said plate and directed outwardly of said apertured end with its point backwardly directed, said tube having a portion of its wall provided with a longitudinal slot open at its outer end to said apertured end of the tube, said slot being receptive to said plate when the plate is turned backwardly on said pivot and said slot being provided with a constricted outer end of a width sufficient to admit said hook and to provide an inwardly located abutment engageable by said plate

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to prevent retrograde angular movement thereof when swung through a right angle so that the wall of the tube acts as a guard for the point of the hook.

2. A structure as set forth in claim 1, and in 5 which the pivot and slot connection comprises a pin diametrically disposed and transversely extending through the plate with its ends loosely engaged in oppositely disposed slots formed in the tube.

3. A structure as set forth in claim 1, and in 10 which the tube is provided with an aperture to receive the point of the hook when the plate is swung backwardly through a right angle.

4. A structure as set forth in claim 1, and in which the constricted part of the longitudinal slot 15

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acts to preclude the plate from turning when the plate is in its outer position.

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